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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,125	02/26/2002	Jae Deok Park	8733.528.00	5395

30827 7590 06/09/2004

MCKENNA LONG & ALDRIDGE LLP  
1900 K STREET, NW  
WASHINGTON, DC 20006

EXAMINER

LEFLORE, LAUREL E

ART UNIT PAPER NUMBER

2673

DATE MAILED: 06/09/2004

*[Handwritten mark]*

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/082,125

Applicant(s)

PARK, JAE DEOK

Examiner

Laurel E LeFlore

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 2,7-9 and 11-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)          |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. <u>10</u> .  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____.  | 6) <input type="checkbox"/> Other: _____.                                   |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of claims 2-6 and 10 in Paper No. 9 is acknowledged. The traversal is on the ground(s) that applicant's view of the instant application is that claims 1 and 3-10 are directed to Species I, II and III, and claims 2 and 11-17 are directed to Species IV. This is found persuasive for the reasons set forth in the attached interview summary.
2. Applicant's election of claims 1, 3-6 and 10 in Paper No. 9 is acknowledged. Because applicant did distinctly and specifically point out the supposed errors in the restriction requirement of Paper No. 8, but did not point out any supposed errors in the modified restriction requirement, this election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Oath/Declaration***

3. Examiner notes that the title page (page 1) of the application and the foreign priority document list two inventors, Ju Chun Yeo and Jae Deok Park. However, the oath and declaration only lists one inventor, Jae Deok Park. It is further noted that Jae Deok Park is listed as "name of second inventor" on the oath and declaration. Therefore, it is unclear as to whether there is a single inventor or co-inventors. Please clarify for the record.

### ***Drawings***

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:

element 2 of figure 1. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the second clock signal of each block connected to the gate of the fourth and ninth switching elements and the source of the sixth switching element, as well as the gate of the second switching element in each block for receiving a first clock signal, both of which are in claim 3, must be shown or the feature(s) canceled from the claim(s). Also, the first and second capacitors of claim 4 must be shown or the feature(s) canceled from the claim(s). The drawings depict a single capacitor that is connected as in claim 4, not a first and second capacitor. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

6. The disclosure is objected to because of the following informalities: The following sentence in paragraph [0028] is unclear: "However, the system makers require different panels, accordingly, this is a serious limitation of the related art LCD panels."

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 3-6 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 3 specifies that each block comprises a first clock signal received by a gate of a second switching element and a second clock signal connected to a gate of fourth and ninth switching elements and a source of a sixth switching element. Claim 5 specifies different clock signals connected differently to varying ones of eight blocks. The two claims seem to contradict each other and are therefore vague and indefinite.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Takeda et al. 4,799,057.

12. In regard to claim 1, Takeda discloses a bi-directional driving circuit of a liquid crystal display (LCD) panel having a plurality of blocks. See column 1, lines 54-59, disclosing, “a driving circuit of the present invention, for a matrix liquid crystal display device...is divided into a plurality of blocks”. Note, as depicted in figure 2, that the

matrix liquid crystal display has a row and column driver and is thus driven bi-directionally.

Takeda further discloses that each block comprises a second start pulse input terminal for receiving one of the start pulse and an output signal of a next block. See column 4, lines 19-24, disclosing, "Referring to FIG. 1, 41 denotes a sampling circuit which is divided into four blocks 41a~41d. The operation of the blocks are controlled by control signals Ea~Ed respectively. That is, each sampling circuit block is operated when the corresponding control signal is of high level". Inherently, there is an input terminal in each of the four blocks that receives this control signal, which is a start pulse.

Takeda further discloses that each block comprises a first start pulse input terminal for receiving one of a start pulse and an output signal of a previous block. See column 5, lines 39-65, disclosing, "FIGS. 6(A) and (B) are another example of the sampling circuit block 41a in the sampling circuit 41 and its driving waveform respectively...a pulse "D" (high level) to be shifted is inputted in the circuit...so that the circuit starts operation. When the pulse is sequentially shifted to the final stage q.sub.m, q.sub.m serves as an input pulse "D" for the next block. On receiving the pulse "D", the next circuit block starts operation...the sampling circuit of the above construction is automatically actuated by the input pulse "D" and automatically interrupted when operation is over". Thus, each block has inherently has a terminal that receives this output signal of a previous block.

***Allowable Subject Matter***

13. Claims 3-6 and 10 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yeo et al. 6,426,743 B1 discloses a shift register with four clock signal inputs.

Kim et al. 6,483,889 B2 discloses a shift register with a transistor configuration similar to the immediate application and four clock inputs.

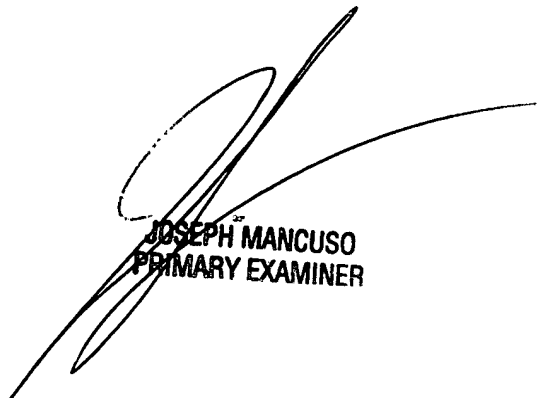
Jeon et al. 6,690,347 B2 discloses a shift register with multiple stages and a transistor configuration similar to the immediate application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laurel E LeFlore whose telephone number is (703) 305-8627. The examiner can normally be reached on Monday-Friday 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (703) 305-3885. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
LEL  
3 June 2004

  
JOSEPH MANCUSO  
PRIMARY EXAMINER



<b>Examiner-Initiated Interview Summary</b>	<b>Application No.</b> 10/082,125	<b>Applicant(s)</b> PARK, JAE DEOK	
	<b>Examiner</b> Laurel E LeFlore	<b>Art Unit</b> 2673	

**All Participants:**

(1) Laurel E LeFlore.

(2) Young Gyukin.

**Date of Interview:** 2 June 2004

**Type of Interview:**  
☒ Telephonic  
☐ Video Conference  
☐ Personal (Copy given to: ☐ Applicant ☐ Applicant's representative)

Exhibit Shown or Demonstrated: ☐ Yes ☒ No  
 If Yes, provide a brief description:

**Status of Application:** following response to election of species

(3) \_\_\_\_\_

(4) \_\_\_\_\_

**Time:** 11:00 am

**Part I.**

Rejection(s) discussed:  
*none*

Claims discussed:  
*claims 1 and 2*

Prior art documents discussed:  
*none*

**Part II.**

SUBSTANCE OF INTERVIEW DESCRIBING THE GENERAL NATURE OF WHAT WAS DISCUSSED:  
*See Continuation Sheet*

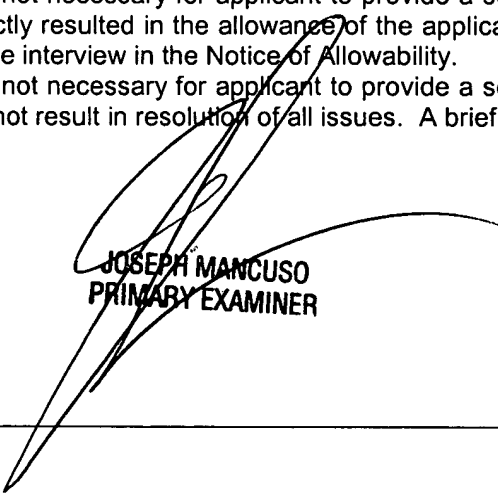
  

**Part III.**

☐ It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview directly resulted in the allowance of the application. The examiner will provide a written summary of the substance of the interview in the Notice of Allowability.

☒ It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview did not result in resolution of all issues. A brief summary by the examiner appears in Part II above.



**JOSEPH MANCUSO**  
**PRIMARY EXAMINER**

(Examiner/SPE Signature)

(Applicant/Applicant's Representative Signature – if appropriate)

Continuation of Substance of Interview including description of the general nature of what was discussed: Young Gyukin contacted the examiner in order to resolve issues relating to the election of species, as indicated by a voicemail message from the examiner to Song Jung, the attorney of record. In the response to the election of species, Paper No. 9, applicant states that claim 2 is directed to species 4. Examiner agrees with applicant on this matter. However, in Paper No. 9, applicant also asserts that claim 1 is directed to Species I, II and III. Examiner's view of claim 1 is that it is directed to species IV, as stated in Paper No. 8. Applicant argues that the claim language, "a first start pulse input terminal for receiving one of a start pulse and an output signal of a previous block" can be interpreted to be a terminal that receives either a first start pulse or an output signal of a previous block, but does not necessarily receive both. In light of this claim interpretation, Examiner agrees that the claim can be directed to species I, II and III as well as IV. Therefore, claims 1, 3-6 and 10 will be examined as provisionally elected in Paper No. 9. .